The DZero/PPDG

D0/PPDG mission is to enable fully distributed computing for the experiment, by enhancing SAM as the distributed data handling system of D0, incorporating standard Grid tools and protocols, and developing new solutions for Grid computing together with Computer Scientists.

The two main areas of work are Job Handling (including specification, brokering, scheduling etc.) and Monitoring and Information Services.

The DZero/PPDG Test Bed

Test bed composition as of Feb 2002:

3 PC at Fermilab (sammy, samadams, sameggs)

Contact: Gabriele Garzoglio

1 PC at Imperial College (sampc.hep.ph.ic.ac.uk)

Contact: Rod Walker

1 PC at Lancaster (fal000phys03.lancs.as.uk)

Contact: Alex Finch

All machines have the Globus Toolkit 2.0 beta installed.

4 machines run SAM.

Fermilab is buying more machines.
Collaborators have been responsive in joining the effort.

The use of the Test Bed

Past usage (Jan - Feb):

- Installing the Globus Toolkit 2.0 beta at the sites.
- GridFTP
  - – Evaluation of GridFTP
  - – Packaging of GridFTP as sam_gridftp to be used by SAM. So far transfers are authenticated with a passwordless certificate for user sam.
- MDS
  - – Evaluation an understanding of the LDAP-based information services.
- Globus Security Infrastructure 

news-item-20feb02.pdf
  - – Tests of the DOEScience Certificate Authority

The use of the Test Bed (...cont'd)

On going usage (Mar):

• Job Submission

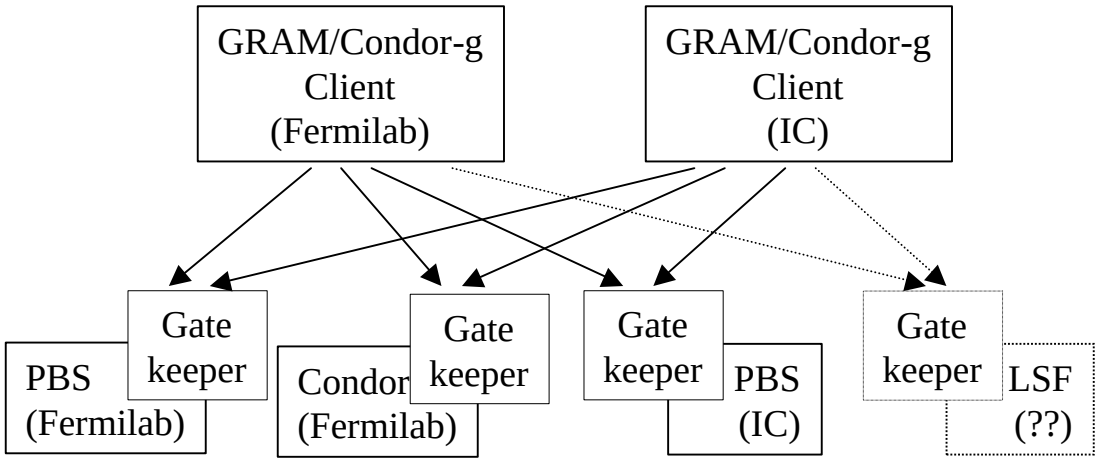
– Setting up 2 client nodes (1 at Fermilab, 1 at IC) + 3 batch system nodes (PBS and Condor at Fermilab, PBS at IC). Any LSF system available?

– Tests with submission using GRAM

– Test with submission using Condor-g

• Globus Security Infrastructure

– Working with Dane Skow to identify interoperability of GSI with Kerberos.



The use of the Test Bed (...cont'd)

Near future usage (Apr/May):

• Integration of the Globus Security Infrastructure with SAM

– Authentication/Authorization Service: using the GSI certificate identity to identify SAM users; using sam-service proxy for data transfers

– GSI-enable Station, FSS, Stager and EWorker